

1086-34-1639

**Faina Berezovskaya\*** (fberezovskaya@howard.edu), Mathematics Department, Howard University, 6 str., Washington, DC 20059. *Asymptotic Behavior of Orbits of Kolmogorov Type Planar Vector Fields with a Fixed Newton Polygon.*

Using the Newton polygon technique we show that the orbits of a Kolmogorov type general planar vector field of quasi-polynomial form have power asymptotics, while tending to the equilibria on the axes and on the equators of the Poincaré sphere. Conditions of the non-degeneracy of a vector field, values of the powers and the coefficients of asymptotics are expressed with help of characteristics of the Newton polygon, which is the convex hull of the quasi-polynomial powers. (Received September 23, 2012)